

Human genome

The human genome is the genome of Homo sapiens. It is made up of 23 chromosome pairs with a total of about 3 billion DNA base pairs. There are 24 distinct human chromosomes: 22 body chromosomes, plus the sex chromosomes (X and Y) that determine gender.

Chromosomes 1-22 are numbered roughly in order of decreasing size. The X and Y chromosomes are named for their shape.

Body cells usually have one copy of chromosomes 1-22 from each parent, plus an X chromosome from the mother, and either an X or Y chromosome from the father, for a total of 46.

Try to show this math here:

It is estimated that 20,000-25,000 human genes give specific instructions.

The estimate has changed from the first predictions of 100,000 or more. Slowly, we are getting better at finding genes and analyzing them. As we continue to improve, we might realize that there are even fewer genes that give specific instructions for how to do or make something. Right now, we are still probably overestimating.

Please turn this into notes (on the back) like we did in class last week